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Prof. Dr W. M. Docters van Leeuwen 75 jaar

Op 16 Maart vierde Professor DOCTERS VAN LEEUWEN zijn 75ste verjaardag. Geen entomoloog kan zijn naam horen, of hij denkt onmiddellijk aan „de man van het Gallenboek”. En inderdaad, als er een is, die de studie van de gallen tot bloei wist te brengen, dan is het wel deze jubilaris. Wij kunnen hem geen beter verjaardagsgeschenk toewensen, dan dat hij de herdruk van zijn boek spoedig in goede gezondheid mag beleven, en dat het hem gegeven moge zijn daarna nog veel nieuwe aanwinsten in onze *Entomologische Berichten* te publiceren.

DE REDACTIE.

Morphological notes on Bryobia forms of fruit trees and ivy

by

J. MELTZER

N.V. Philips-Roxane

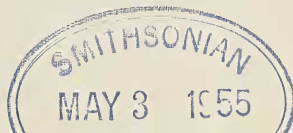
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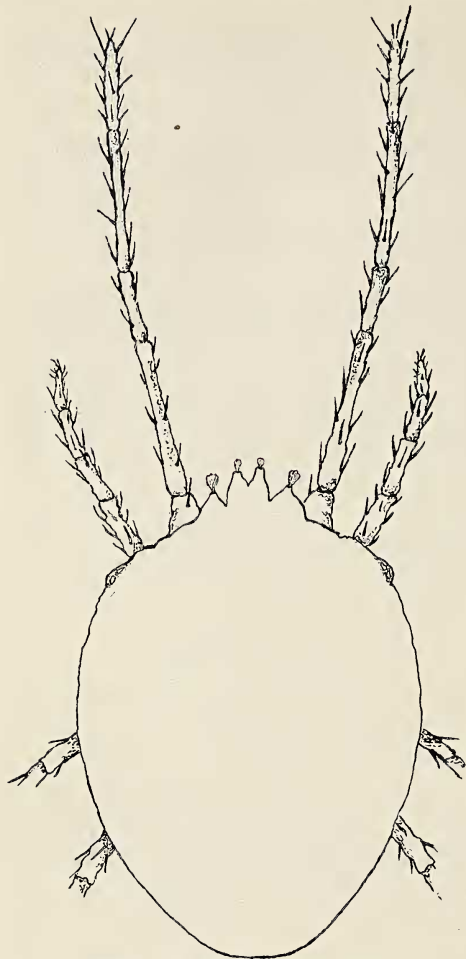
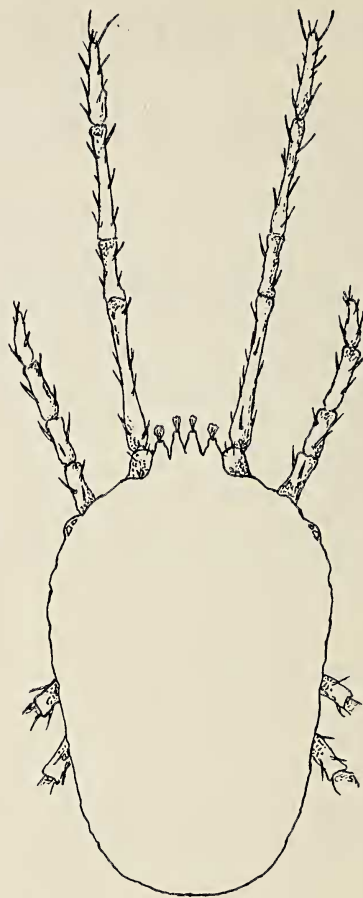
's-Graveland, Netherlands

According to GEIJSKES (1) it is not possible to define the species *Bryobia praetiosa* Koch sharply. This author supposes that there may be a series of subspecies or biological races which are living on various plants, but which cannot be distinguished by morphological characteristics. GEIJSKES mentions forms on apple, gooseberry and ivy.

In the course of our work with Tetranychidae during 1954, we were in a position to compare populations of *Bryobia* from apples, pears, and ivy. At first we were surprised by the differences in habit between the form living on fruit trees and the one on ivy. As to the marks of identification found in literature,

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Fig. 1. *Bryobia* spec. of ivy.Fig. 2. *Bryobia* spec. of fruit trees.

however, both forms should belong to *Bryobia praetiosa* Koch. About two hundred specimina of both hosts were examined and measured.

The form living on ivy is more or less oval, showing the greatest breadth just below the propodosoma, gradually decreasing towards the posterior end of the animal, so that the sides below the propodosoma show a somewhat curved course (fig. 1). The length of the body varies between 700 μ and 938 μ ; the greatest breadth between 468 μ and 547 μ .

The form from the fruit trees is a smaller one, varying between 600 μ and 719 μ in length and showing a breadth of 375 μ —469 μ . The body shows a more ideal egg-shape, the greatest diameter lying within the propodosoma. From this point on the sides show a more or less rectilinear converging course with a sudden sharp curve near the posterior end of the body. As a consequence the end of the body is more blunted than by the previous form (fig. 2).

After a more exact examination of the lobes of the anterior margin of the proterosoma each form appeared to be characterised by different types of lobes.

As can be seen in fig. 1 the outer lobes of the ivy-form are short and thick-set. The tops of these lobes are hardly reaching the base of the incision between the central, more slender and taller lobes. As a consequence the tops of the palmate setae of the outer lobes reach up to about the tops of the central lobes.

The lobes of the front margin of the fruit tree form are more equal in size and shape. The more slender outer lobes are here surpassing considerably the incision between the central ones, and the tops of the outer setae rise above the bases of the central setae.

Probably more morphological differences will be discovered in a more intensive investigation. But the above mentioned characteristics, which appeared to be constant in all cases examined, are in our opinion sufficient to distinguish both forms and to raise them to the rank of separate species. As a result of the unfavourable weather conditions during 1954, our transfer experiments failed, so that these trials are not conclusive. We are, however, under the impression that

Table 1. Characteristics of two forms of *Bryobia*, belonging to the group *B. praetiosa* Koch.

	Form of fruit trees	Form of ivy
Length	600 μ —719 μ	700 μ —938 μ
Greatest breadth	lying in the propodosoma 375 μ —469 μ	lying in the metapodosoma 468 μ —547 μ
Lobes of the anterior margin	Relatively slender. Tops of outer lobes rise above the base of the incision between the central lobes	Outer lobes short and thick-set, broadly based, not or hardly reaching the base of the incision between the central lobes
Setae of central lobes	Central setae slightly shorter than outer ones, more or less spatulate	Central setae much smaller than outer ones, more or less circular (palmate)
Setae of outer lobes	Outer setae rising above the base of the central setae	Tops of outer setae just reaching but not surpassing the tops of the central lobes

the fruit tree form cannot maintain itself on ivy or gooseberry, and that the ivy form cannot settle on fruit trees and gooseberry. This is in accordance with previous authors, cited by ROOSJE & VAN DINTHER (2).

Summarizing our results we think we can distinguish two different species within the group of *Bryobia praetiosa* with the characteristics of table 1. The majority of the specimens were collected on ivy, pear and apple at Boekesteyn, 's-Graveland. Some samples were collected in an apple orchard at Hilversum. In the latter we found the fruit tree form also on *Crataegus*.

We are indebted to Mr E. BOEVE for the instructive drawings of the described *Bryobia* forms which he kindly made for us.

Literature

- (1) GEIJSKES, D. C., 1939, Beiträge zur Kenntnis der europäischen Spinnmilben (Acari, Tetranychidae), mit besonderer Berücksichtigung der niederländischen Arten. *Med. Landbouwhogeschool Wageningen* 42, (4) 68 pp.
- (2) ROOSJE, G. S. and B. M. VAN DINTHER, 1953, The genus *Bryobia* and the species *Bryobia praetiosa* Koch. *Ent. Berichten* 14: 327—336.